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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/729,497	12/05/2003	Ahmed S. Abuealyaman	58069/US004	1945
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3M INNOVATIVE PROPERTIES COMPANY				
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ST. PAUL, MN 55133-3427				
EXAMINER				
ROBERTS, LEZAH				
ART UNIT		PAPER NUMBER		
1612				
NOTIFICATION DATE		DELIVERY MODE		
08/21/2008		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

LegalUSDocketing@mmm.com

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Office Action Summary

Application No.

10/729,497

Applicant(s)

ABUELYAMAN, AHMED S.

Examiner

LEZAH W. ROBERTS

Art Unit

1612

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 May 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 42-105 is/are pending in the application.
- 4a) Of the above claim(s) 42-103 and 105 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 104 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/5508)
- Paper No(s)/Mail Date 3 April 2008
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

This Office Action is in response to the Request for Continued Examination filed April 3, 2008 and May 6, 2008. All previous rejections have been withdrawn unless stated below.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Election by Original Presentation

Newly submitted claims 75-107 and 109 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: the newly submitted claims do not read on the elected species of 1-hydroxy-6-methacylamidohexylidene bisphosphonate elected February 20, 2007.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 75-107 and 109 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Specification

Objections - Claims Misnumbered

The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When

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claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not). Applicant's future correspondence should reflect the changes.

Misnumbered claims 46-109 been renumbered to 42-105.

Therefore the claim status is below.

Claim status: Claims 1-41 have been cancelled.

Claims 71-105 are new.

Claims 42-103 and 105 are withdrawn from consideration.

Claims

Claim Rejections - 35 USC § 112 – Indefiniteness (New Rejection)

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 108 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claim recites the limitation "R¹ is an aliphatic, aromatic, aralkyl group substituted with an element other than carbon and hydrogen, and including an ethylenically unsaturated polymerizable group". It is not clear if the

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aliphatic, aromatic and aralkyl group are all substituted or if only the aralkyl group is substituted, making the claim indefinite.

Claim Rejections - 35 USC § 102 – Anticipation (Previous Rejection)

Claims 1-4, 6, 8-26, 28 and 30-45 were rejected under 35 U.S.C. 102(b) as being anticipated by Haberland et al. (DD 273 846 A1, Already of Record). This rejection is maintained and applied to claim 104 (108). The rejection has been withdrawn in regards to cancelled claims 1-4, 6, 8-26, 28 and 30-45.

Applicant's Arguments

The claims pertinent to the argument filed April 3, 2008 have been cancelled and withdrawn from consideration. The arguments are acknowledge and deemed moot in view of the amendment filed May 6, 2008.

In regards to the remarks filed May 6, 2008, Applicant argues in regards to claim 108 that Haberland et al. do not teach a composition comprising a compound of Formula I wherein R1 includes a cyclic group and a polymerizable group, or is an aliphatic, aromatic, aralkyl, or alkaryl group substituted with an element other than carbon and hydrogen and including an ethylenically unsaturated polymerizable group, as recited in claim 108. This argument is not persuasive.

Examiner's Response

Haberland et al. disclose bisphosphonic acids that are encompassed by 108, such as the elected species. The reference discloses R¹ is OH, which reads on claim 108 reciting R¹ is an aliphatic, aromatic, aralkyl group substituted with an element other than carbon and hydrogen, and including an ethylenically unsaturated polymerizable group and R² is OR where R may be hydrogen. Therefore, R¹ of the reference encompasses R² of the instant claims, and the alkyl group where n is 0 to 5 having an amine group with an ethylenically unsaturated polymerizable group disclosed in the reference encompasses R¹ of the instant claims. The aliphatic of the instant claims is concluded to be substituted (see Indefiniteness rejection above).

Claim Rejections - 35 USC § 103 – Obviousness (Previous Rejection)

Claims 1-4, 6, 8-26, 28 and 30-45 were rejected under 35 U.S.C. 103(a) as being unpatentable over Omura et al. (US 4,499,251, Already of Record). This rejection is maintained and applied to claim 104 (108). The rejection has been withdrawn in regards to cancelled claims 1-4, 6, 8-26, 28 and 30-45.

Applicant's Arguments

The claims pertinent to the argument filed April 3, 2008 have been cancelled and withdrawn from consideration. The arguments are acknowledge and deemed moot in view of the amendment filed May 6, 2008.

Applicant argues new independent claim 108 is not obvious in view of Omura et al. Omura et al. teach that the hydrocarbon group A represents the organic residue Ra of Formula I, column 4, and that "Ra represents an organic residue of 6-60 carbon atoms." The group Ra is additionally defined as "a hydrocarbon group of 6-60 carbon atoms optionally substituted by halogen, hydroxyl, amino or carboxyl." Applicants submit that the number of species (i.e., structural isomers) of "a hydrocarbon group of 6-60 carbon atoms" is very large, and that the genus encompassed by Formula II of Omura et al. (which includes additional variables) is a potentially infinite genus. There is nothing to suggest how to select particular species not specifically recited by Omura et al. For at least this reason, independent claim 108 is patentable in view of Omura et al.

Examiner's Response

Although the compounds of the reference are broad, they still encompass the compounds of the instant claim and it would have been obvious to make the compound for dental procedures due to the general disclosure of the reference. Furthermore the claim is also broad insofar as group R¹ and R² encompass numerous groups which would result in numerous combinations making numerous compounds.

Claim 104 is rejected.

Claims 42-103 and 105 are withdrawn.

No claims allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LEZAH W. ROBERTS whose telephone number is (571)272-1071. The examiner can normally be reached on 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frederick F. Krass can be reached on 571-272-0580. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Lezah W Roberts/
Examiner, Art Unit 1612

/Frederick Krass/
Supervisory Patent Examiner, Art Unit 1612